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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/701,146	11/04/2003	Frank C. Smith JR.	50121	4832
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SHAPER ILLER LLP 1800 WEST LOOP SOUTH SUITE 1450 HOUSTON, TX 77027				
EXAMINER				
DINH, TEN QUANG				
ART UNIT		PAPER NUMBER		
3644				
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10/21/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/701,146

**Applicant(s)**

SMITH, FRANK C.

**Examiner**

Tien Dinh

**Art Unit**

3644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 June 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/ICE)  
Paper No(s)/Mail Date 3/3/08
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, "large objects" is vague. What does "large" mean? What qualifies an object as "large"?

Re claim 12, it is not understood if applicant is claiming an apparatus or a design method here. Is applicant claiming all power sources? If so what are they? Are there electric engine, a person peddling, horses in the aircraft, rocket engines, rubberbands, etc.? What does "yaw control surfaces at least as far forward as the larger lifting surface" mean? What does far forward mean?

***Claim Rejections - 35 USC § 103***

Claims 1-6 and 8-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rutan 4641800 in view of Rutan ATTT.

Rutan discloses that canards with pitch control surfaces on an aircraft with no empennages and two significant horizontal surfaces are well known in the art. Ratan lacks the door at the rear of the fuselage. Ratan ATTT does teach using a door at the rear of the fuselage.

It would have been obvious to one skilled in the art at the time the invention was made to have used doors at the end of the fuselage in Rutan's system as taught by Rutan ATTT to easily load cargos and to increase maneuverability.

RE amended claim 1, "large" objects are capable of being loaded through the opening. The term large is relative. The rear door of Rutan's aircraft as modified by Rutan ATTT does indeed allow "large" objects to be loaded through the opening.

The examiner believes that Rutan has yaw control surfaces the larger lifting surface but in order to definitively show that yaw control surfaces on a larger lifting surface, the examiner brings forth Burnelli 1987050 to show that such claimed elements (number 14) are well known. Therefore, claims 2 and 12 are rejected by Rutan in view of Rutan ATTT and further in view of Burnelli. One skilled in the art would have used the yaw control surfaces for increased maneuverability.

Re claim 8, please note that the two engines 18 of Rutan are on the larger lifting surface.

Re claim 12, the power sources 18 and yaw control surfaces (as taught by Burnelli and used to modified Rutan's aircraft) on Rutan's aircraft are as forward as the larger lifting surface since they are on the larger lifting surface.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rutan 4641800 as modified by Rutan ATTT as applied to claim 1 above, and further in view of admitted prior art that successful testing of a canard aircraft with a single tractor engine that was witnessed.

Rutan 4641800 as modified by Rutan ATTT discloses all claimed parts except for the tractor engine. However, the admitted prior art that tractor engines are well known in the art.

It would have been obvious to one skilled in the art at the time the invention was made to have used a tractor engine in Rutan 4641800's system as modified by Rutan ATTT and as taught by the admitted prior art to have the predictable result of more efficient thrust production.

### ***Response to Arguments***

The affidavit that was submitted on 6/6/08 has been considered but is not convincing. Mr. Wood's education is in electrical engineering and his opinion is not based on solid aerospace engineering principals. His opinion that "no private aircraft manufacturer has solved this problem" does not prove putting a door on the rear of the aircraft is not obvious. The examiner maintains that the rejections still stand.

The applicant has argued that because of the history of the a two surface canard design, it would not have been obvious to one skilled in the art to have looked at Rutan and Rutan ATTT to teach using a door at the rear of the Rutan's aircraft. This is not convincing since what has been claimed is an aircraft with canard and no empennage and a rear door to allow "large" objects to be loaded. What Rutan clearly teaches is an aircraft with canard and no empennage but lacks a rear door. A person skilled in the art would see that Rutan ATTT clearly teaches a rear door at the end of the aircraft. Having a door at the rear of the aircraft offers great advantages such as quicker loading and unloading. A person skilled in the art would found it obvious to put a door at the rear of Rutan's aircraft as taught by Rutan ATTT provides quicker

loading and unloading. Applicant tried to point out that the scaled composites reference teaches away from the Rutan because this reference has the design of twin-boom tail and that a person skilled in the art would not have found it obvious to put a door at the rear of the Rutan reference. The examiner disagrees with Rutan ATTT was used to teach a rear door only. A person skilled in the art would have used a rear door in Rutan's aircraft for easier loading and unloading. Applicant also argues that since Rutan has two engines at the rear that somehow putting a door at the rear would not be allowed since there would be no space. Applicant's argument is not convincing since a door comes in many different sizes and have many opening and closing linkages such as allowing the door to pivot upwardly. A person skilled in the art would have used a rear door so that it would not interference or block the rear engines.

Finally, applicant seems to argue that since no prior arts teach a canard winged aircraft with no empennage with a rear door has been taught that it is patentable. To answer this, the examiner points to *KSR v. Teleflex*. Where a claimed improvement on a device or apparatus is no more than "the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for improvement," the claim is unpatentable under 35 U.S.C. 103(a). *Ex Parte Smith*, 83 USPQ2d 1509, 1518-19 (BPAI, 2007) (citing *KSR v. Teleflex*, 127 S.Ct. 1727, 1740, 82 USPQ2d 1385, 1396 (2007)). Accordingly Applicant claims a combination that only unites old elements with no change in the respective functions of those old elements, and the combination of those elements yields predictable results; absent evidence that the modifications necessary to effect the combination of elements is uniquely challenging or difficult for one of ordinary skill in the art, the claim is unpatentable as obvious under 35 U.S.C. 103(a). *Ex Parte Smith*, 83 USPQ2d at 1518-19 (BPAI, 2007) (citing

KSR, 127 S.Ct. at 1740, 82 USPQ2d at 1396. Accordingly, since the applicant[s] have submitted no persuasive evidence that the combination of the above elements is uniquely challenging or difficult for one of ordinary skill in the art, the claim is unpatentable as obvious under 35 U.S.C. 103(a) because it is no more than the predictable use of prior art elements according to their established functions resulting in the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for improvement.

Applying a rear door to Rutan's aircraft as taught by Rutan ATTT is indeed obvious and valid in view of KSR v. Teleflex.

In response to applicant's argument to the single tractor engine that was witnessed, a person skilled in the art would have used a single tractor engine in Rutan's system to have the predictable result of more efficient thrust production.

In conclusion, what applicant has claimed is anticipated by Rutan, Rutan ATT, and the admitted prior arts. The fact that the history of canard wing designs or that no single prior art teaches everything that is being claimed does not make the claims allowable. The combination of Rutan, Rutan ATT, and the admitted prior arts clearly meet what has been claimed.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tien Dinh whose telephone number is 571-272-6899. The examiner can normally be reached on 12-8.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Mansen can be reached on 571-272-6608. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Tien Dinh/  
Primary Examiner, Art Unit 3644